

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.





83 Pou

1918-1919

Property of the Bureau of Entomology  
U. S. Department of Agriculture

Poultry Lice & Control

RECEIVED  
NOV 29 1939  
BUREAU OF ENTOMOLOGY  
U. S. DEPARTMENT OF AGRICULTURE

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS AND AGRICULTURE, AND  
MECHANICAL COLLEGE OF TEXAS AND UNITED STATES DEPARTMENT OF AGRICULTURE  
COOPERATING?

Clarence Ousley, director.

From time immemorial poultry has been enduring the attacks of several kinds of lice all of which feed by biting and never by sucking. It is very rare that all species of lice known to occur upon any one group of fowls, as for instance chickens, are all present at the same time. We have, in America, at least seven kinds of chicken lice, two species on turkeys, three on guinea fowls, and seven on pigeons, five different forms on the goose, three on the domestic duck, and four species on the peafowl. These lice are all native to their hosts, however under domestic environment of roosting together the body louse of the hen may be found upon turkeys, and possibly the guinea fowl. The head louse of the chicken has been taken from the duck. The body louse of the domestic hen is very common and occurs in injurious numbers upon turkeys.

The three most important lice, economically speaking occurring upon the chicken are, the head louse, shaft louse and the body louse. The head louse is confined almost entirely to the top of the head, remaining upon the shaft of the feather, head down, the jaws almost touching the skin. This position has given rise to the belief that the head louse feeds upon the flesh, whereas in reality it feeds upon the feathers, cutting off little particles with its sharp jaws. The eggs, of this louse are cylindrical and pearly white in color and are to be found singly near the base of the feathers on the head, close to the shaft.

If the mother hen is depended upon to hatch the eggs or the incubator chicks are given a hen, the head lice will instinctively migrate to the innocent chicks deposit large numbers of eggs along the throat and if in large numbers, considerable will be the mortality.

The body louse is quite different from other poultry lice, in that it lives entirely upon the surface of the skin and is to be found in greatest numbers below the vent whether on chickens or on turkeys, when badly infested, these body lice are to be found crawling everywhere on the skin, over the back, sides, breast, and neck but in very small numbers on the bare skin beneath the wings. The irritation produced from this louse is something terrible. Large reddish areas will occur and oftentimes the blood may appear, due entirely to this pest. This louse feeds entirely off the feathers and cast off cuticle of the skin.

The eggs of this louse are fringed at one end and are laid in masses at the base of the feathers, usually below the vent or the throat. Fresh eggs are deposited upon these masses from time to time until molting. Sometimes these egg masses will be about  $\frac{3}{16}$  inch wide by  $\frac{1}{4}$  to  $\frac{3}{8}$  inch long.

The other louse (shaft louse) is found upon the shaft of the feathers, (hence the name), most commonly on the thigh, when the feathers are separated the lice quickly run down the shaft, into the skin and up on to some other feather.

When chickens are badly infested with lice, they will have a droopy appearance, wings will tend to hang down, the bones or skeleton will become more prominent, and the bright clear vigorous energetic look will be lost. Death, due entirely to louse attack, is not known. If at laying time, the egg production will also be reduced.

Feed those chickens and not the lice.

Treatment. USE SODIUM-FLUORIDE.

For years, all sorts of greases, powders, dust baths, ointments, patent remedies and strychnine alkaloid in nux-vomica to be taken internally, etc., have been used but none of them have ever given perfectly satisfactory results. The U. S. Bureau of Entomology, after a long series of experiments upon poultry, have shown conclusively that sodium-Fluoride when properly applied will destroy all poultry lice, and young lice, and that the powder remains active upon the fowl for a sufficient time to kill all lice that hatch or in other words will give 100% efficiency.

HOW TO USE SODIUM-FLUORIDE.

1. Dust method. Secure a bread pan, tub, or any vessel large enough for the fowl that is to be treated. 2. Hold the fowl in the vessel, holding the base of the wings with one hand, and with the other hand secure a pinch of the powder between thumb and finger and place one pinch at base of feathers on head and neck, two pinches at base of feathers on back, one pinch on throat, one below vent and one on each flank. One on each wing and tail, one on breast and one on head of baby chicks one-half on top of head and another half pinch along throat. Total number of pinches 11.

SODIUM-FLUORIDE as a DIP.

Many poultrymen prefer to dip their fowls instead of using the powder. Experiments have shown conclusively that there is no danger whatever from dipping, provided the day is warm. A sunshiny day is preferable. Dissolve  $\frac{3}{4}$  to one ounce of the fluoride in one gallon of water. Nine level teaspoonful, or three level tablespoonful, of the powder equals one ounce approximately. Secure a vessel deep enough to completely immerse the fowl being treated, hold the fowl by the wings with one hand, the legs with the other, place entirely under the dip except the head, then release the legs and ruffle the feathers enough so that the dip will reach the skin, then completely duck the head once or twice. It is not necessary to soak the fowl.





Six gallons of dip will treat about 100 chickens, will not injure fowls, and does not discolor nor injure the feathers. One pound of the commercial Sodium-Fluoride powder 90% to 97% purity will be enough for about 100 chickens. A few drug stores do not carry Sodium-Fluoride, because it is new and there has been very little demand for it. Call for it, demand it, and your druggist will be glad to put in a supply. It will be better to purchase the powder in pound packages which can then be purchased at a more reasonable figure. The price should not exceed 45 to 60¢ a pound at most. If your druggist will not carry it in stock write your mail order house or the State Poultryman.

CAUTION.

Do not allow your neighbors' chickens to associate with yours and the contrary, for if you do your flock is almost sure to become reinfected. A better way, treat your neighbors' chickens.

Approved by:

F. W. Kaezeler, Poultry Husbandman  
Extension Service, A and M College of Texas.

By:

O. G. Babcock, Special Field Agent  
U. S. Department of Agriculture  
Insects affecting animals, Cooperating  
with the Agricultural Extension Service,  
A and M College of Texas.



Carthy Rice and Co. Boston